

## CONFIRMAT 2300 COPY

## Notice of Opposition to a European Patent

To the 13. Dez. 2004  
European Patent Office

Tabulation marks

OL

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## I. Patent opposed

Patent No.

Opp. No. OPPO (1)

EP-B-1 140 228

Application No.

99 964 875.1

Date of mention of the grant in the European Patent Bulletin  
(Art. 97(4), 99(1) EPC)

10. March 2004

## Title of the invention:

An absorbent article having a material laminate that comprises a liquid permeable top sheet and a liquid permeable liquid transfer sheet

## II. Proprietor of the Patent

first named in the patent specification

SCA Hygiene Products AB, 405 03 Göteborg (SE)

Zur Kasse

Opponent's or representative's reference (max. 15 spaces)

OREF

## III. Opponent

Name

OPPO (2)

Address

The Procter & Gamble Company  
One Procter & Gamble Plaza  
Cincinnati, OHIO 45202, U.S.A.State of residence or of principle  
place of business

Telephone/Telex/Fax

Multiple opponents

## IV. Authorisation

1. Representative  
(Name only one representative to whom notification is to be made)

OPPO (9)

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06196/89-1175      06197/89-4470

Additional representative(s)

X (on additional sheet/see authorisation)

OPPO (5)

2. Employee(s) of the opponent  
authorised for these opposition  
proceedings under act. 133(3)  
EPC

Name(s):

Authorisation(s)

 not considered necessary

To. 1./2.

X has/have been registered  
under No.

GA 2048

 is/are enclosed

for EPO use only

**V. Opposition is filed against**

— the patent as a whole

— claim(s) No(s).

**VI. Grounds for opposition:****Opposition is based on the following grounds:**

(a) the subject-matter of the European patent opposed is not patentable (Art. 100(a) EPC)

because

— it is not new (Art. 52(1); 54 EPC) — it does not involve an inventive step (Art. 52(1); 56 EPC) — patentability is excluded  
on other grounds, i.e.Art.   
  
(b) the patent opposed does not disclose the invention in a manner sufficiently clear and complete  
for it to be carried out by a person skilled in the art (Art. 100(b) EPC; see Art. 83 EPC). (c) the subject-matter of the patent opposed extends beyond the content of the application/  
of the earlier application as filed (Art. 100(c) EPC, see Art. 123(2) EPC). **VII. Facts and arguments**

(Regel 55(c) EPC)

presented in support of the opposition are submitted herewith on a separate sheet (annex 1) **VIII. Other requests:**

In the event the patent cannot be revoked on the basis of the written submissions, the Opponent  
hereby requests oral proceedings.

<b>IX. Evidence presented</b> As per Statement of Facts & Arguments		for EPO use only
		Enclosed = <input checked="" type="checkbox"/>
		will be filed at a later date = <input type="checkbox"/>
<b>A. Publications:</b> D1 WO93/11725, published June 24, 1993, whole document Particular relevance (page, column, line, fig.): <hr/>		Publication Date
D2 US 5, 009, 653, granted April 23, 1991, whole document Particular relevance (page, column, line, fig.): <hr/>		
D3 WO98/27904, published July 2, 1998, whole document Particular relevance (page, column, line, fig.): <hr/>		
D4 EP-A-272 683, June 29, 1988, whole document Particular relevance (page, column, line, fig.): <hr/>		
D5 US 4, 397, 644, granted August 9, 1983, whole document Particular relevance (page, column, line, fig.): <hr/>		
D6 EP-A-106 473, published April 25, 1984, whole document Particular relevance (page, column, line, fig.): <hr/>		
D7 SE-A-97002298-2 (discussed in examination)/GB9812625A, whole document Particular relevance (page, column, line, fig.): <hr/>		
		Continued on additional sheet <input type="checkbox"/>
<b>B. Other evidence</b>     		Continued on additional sheet <input type="checkbox"/>

**X. Payment of the opposition fee is made**

as indicated in the enclosed voucher for payment of fees and costs (EPO Form 1010)

**XI. List of documents:**Enclosure  
No.

No. of copies

0	<input checked="" type="checkbox"/> Form for notice of opposition	<input type="text" value="2"/> (min. 2)
1	<input checked="" type="checkbox"/> facts and arguments (see VII.)	<input type="text" value="2"/> (min. 2)
2	Copies of documents presented as evidence (see IX.)	
2a	<input checked="" type="checkbox"/> — Publications	<input type="text" value="2"/> (min. 2 of each)
2b	<input type="checkbox"/> — Other documents	<input type="text"/> (min. 2 of each)
3	<input type="checkbox"/> Signed authorisation(s) (see IV.)	<input type="text"/>
4	<input checked="" type="checkbox"/> Voucher of payment of fees and costs (see X.)	<input type="text" value="1"/>
5	<input type="checkbox"/> Cheque	<input type="text"/>
6	<input checked="" type="checkbox"/> Additional sheet(s)	<input type="text" value="2"/> (min. 2 of each)
7	<input type="checkbox"/> Other (please specify here):        	<input type="text"/>

**XII. Signature  
of opponent or representative**

Place Schwalbach/Taunus

Date 10. December 2004


Veronique Kremer  
(GA 2048)

Please type name under signature. In the case of legal persons, the position which the person signing holds within the company should also be typed.

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D – 80331 München

**CONFIRMATION COPY**

December 10, 2004  
VK/gw

**NOTICE OF OPPOSITION TO EP-B-1 140 228**  
**Statement of Facts and Arguments**

**Opposition is filed against:** EP-B-1 140 228, granted March 10, 2004  
 Patent Proprietor: SCA Hygiene Products AB,  
 Title: "An absorbent article having a material laminate that  
 comprises a liquid permeable top sheet and a liquid permeable  
 liquid transfer sheet"

**by Opponent:** The Procter & Gamble Company  
 One Procter & Gamble Plaza  
 45202 Cincinnati, Ohio  
 U.S.A.

**on the Grounds of:** Lack of Novelty (Article 100(a) – Article 54 EPC)  
 Lack of Inventive Step (Article 100(a) – Art. 56 EPC)  
 Insufficiency of disclosure (Art. 100(b) – Art. 83 EPC)

The Procter & Gamble Co. hereby lodge opposition against the grant of European Patent EP-B-1 140 228 and request that the patent be revoked in its entirety according to Article 102(1) in conjunction with Articles 100 (a) and (b) EPC.

Payment of the Opposition fee is authorized from our deposit account at the EPO, number 2802.0021 (debit order herewith attached).

**1. Grounds and Reference Relied Upon**

- The subject matter of the claims of the European patent is to be revoked in accordance with Article 100(b) EPC, since the subject matter is not disclosed in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art.

- The subject matter of the claims of the European patent is to be revoked in accordance with Article 100(a) EPC, since the subject matter of claims is not patentable within the terms of Articles 52-57 EPC. In particular, the claims are not novel within the terms of Art. 54 EPC, and, in any case, are not based on an inventive step within the terms of Article 56 EPC.

Oral proceedings pursuant to Article 116 EPC are hereby requested if the patent cannot be revoked on the basis of the written submissions.

The following documents are cited and relied upon herein:

- D1 WO93/11725, published June 24, 1993
- D2 US 5,009,653, granted April 23, 1991
- D3 WO98/27904, published July 2, 1998
- D4 EP-A-272 683, June 29, 1988
- D5 US 4,397,644, granted August 9, 1983
- D6 EP-A-106 473, published April 25, 1984
- D7 SE-A-97002298-2 (discussed in examination)/GB9812625A

Documents D1-D7 have been published before the priority date of the European Patent opposed, namely December 16, 1998. Hence, D1-D7 form part of the state of the art according to Article 54(2) EPC with respect to the opposed patent.

In addition all prior art references cited within the patent in suit and prior art references discussed during its examination proceedings are expressly incorporated within the context of the present opposition.

## 2. Independent claim structure

The opposed patent contains one independent claim. The following claim structure for independent Claim 1 will be relied upon herein:

Claim 1: (a) An absorbent article, such as a diaper, sanitary napkin, incontinence protector, wound dressing or the like, comprising,

(b) an absorbent body (12) enclosed between a liquid-impermeable backing sheet (11) and a material laminate (1) in the form of a liquid permeable, fibrous sheet of material (2) forming a topsheet (2), and a liquid-permeable, porous and resilient sheet of material (3), forming a liquid transfer sheet (3) lying proximal to the absorbent body (12), wherein the laminate (1) has a planar extension and a thickness direction perpendicular to said planar extension,

(c)\* wherein at least one of the sheets (2,3) includes thermoplastic material,

(d) and wherein the two sheets (2,3) are joined together through the medium of bonding locations (4) on the laminate (1) within which the thermoplastic material is caused to at least partially soften or melt and thereby join together said two sheets (2,3),

characterized in that,

(e) the absorbent body includes partially neutralized superabsorbent;

(f) and in that the sheet-joining regions of the laminate extend in the thickness direction of said laminate (1) through the topsheet (2) and at least partially through the liquid transfer sheet (3).

### 3. Insufficiency of Disclosure of the Invention – Art. 100(b)

The invention as claimed in Claims 1 and 2 is insufficiently disclosed because the invention is not disclosed in a manner sufficiently clear and complete for it to be carried out by persons skilled in the art.

The various terminologies used throughout the specification and in for example Claims 1 and 2 render the invention as claimed insufficient for reproducibility in concise and repeatable manner. Indeed claim 1 refers to ‘bonding locations (4)’ and ‘sheet-joining regions’ in its characterization part, whereas dependent claim 2 introduces the requirement of ‘bonding regions’, which regions are disposed in 2 or more groups (5) where each group includes at least 2 bonding locations (4), wherein the largest relative distance between 2 mutually adjacent bonding locations (4) in a given group (5) is smaller than the smallest distance between a group (5) and its nearest neighboring group (5). No definition is given as to what is a ‘group’ and what is ‘a bonding location’, ‘bonding region’ throughout the whole specification, let alone how the spacing between respective entities is to be measured, particularly not if the bonding locations/groups are disposed irregularly.

Therefore, the opposed patent should be revoked for insufficiency of disclosure.

### 4 Lack of novelty

#### **4.1 Lack of Novelty of Claim 1 (Art. 54 EPC) – Based on D1**

WO93/11725 (D1) discloses absorbent articles, such as a diaper, sanitary napkin, incontinence devices in page 1, lines 3-5. Therefore, Claim element (a) is explicitly disclosed by D1.

D1 discloses absorbent article wherein the absorbent core is positioned between the topsheet and the backsheet, see page 4, last paragraph and page 5, 1<sup>st</sup> paragraph. Said article comprises an acquisition layer (distribution layer) positioned between the topsheet and the absorbent core

(see also page 15, 3<sup>rd</sup> paragraph). The topsheet and the acquisition/distribution layer (or other underlying layer) are placed in face to face relationship, thereby providing a material laminate in the form of a first liquid permeable layer (2) forming the topsheet (2) and a liquid permeable sheet of material (3) forming a transfer sheet (3) lying proximal to the absorbent body as claimed. The topsheet can be a woven or nonwoven material. Therefore, Claim element (b) is explicitly disclosed by D1.

D1 discloses page 10, lines 18-24, that the woven or nonwoven topsheet can be comprised of synthetic fibers (e.g., polymeric fibers such as PE, PP and the like). D1 further discloses page 20, lines 5-9, that the acquisition/distribution layer may be comprised of synthetic or partially synthetic materials including polyester, polypropylene, polyethylene and so on. See also page 20, last paragraph. Therefore, Claim element (c) is explicitly disclosed by D1.

D1 discloses page 5, lines 5-8 that the topsheet (i.e., the first layer (2)) is secured to the underlying layer (i.e., sheet (3)) at discrete bonded areas (44). The topsheet is fused to the underlying layer, see page 16, last paragraph to page 17, first line as well as page 23, 2<sup>nd</sup> paragraph to page 24, 2<sup>nd</sup> paragraph). The fusion bonding comprises a pattern of individual fusion bonds 44, see last paragraph, page 24 to 1<sup>st</sup> paragraph, page 25. Therefore, Claim element (d) is explicitly disclosed by D1.

D1 discloses 2<sup>nd</sup> paragraph, page 27 that bonds extend in the thickness direction of said laminate (1) through the topsheet (2) and at least partially through the liquid transfer sheet (3). On page 28, lines 4-7, it is further specified that the bonds 44 may be formed deep enough to go into part or all of any of the components or layers of the sanitary napkin. Therefore, Claim element (f) is explicitly disclosed by D1.

D1 further discloses that the absorbent core comprises superabsorbent polymer material, see page 34, lines 15-16, 3<sup>rd</sup> paragraph. Preferred types of polymer materials are said to be those disclosed in US 5, 009, 653 (D2). D2 discloses partially neutralized, hydrogel-forming polymer material at column 5, line 4. See also especially column 5, lines 57 to 62 of D2. Therefore, Claim element (e) is explicitly disclosed by D1 too.

It should be noted herewith that the combination of D2 with D1 for the disclosure of suitable superabsorbent, is perfectly acceptable under the case law of the Board of Appeal of the EPO (see in particular T 153/85) which allows such a combination for novelty purpose if the primary document makes a specific reference to the second document. This corresponds exactly to the present situation insofar as D1 refers to D2 specifically with respect to suitable superabsorbent (see page 35, lines 4 of D1).

D1 directly and unambiguously discloses all features of Claim 1 and hence is novelty destroying for claim 1.

#### 4.2 Lack of Novelty of Claim 1 (Art. 54 EPC) – Based on D3

WO 98/27904 (D3) discloses absorbent articles, such as a diaper, panty liners, adult incontinence devices and the like on page 1, lines 1-3. Therefore, Claim element (a) is explicitly disclosed by D3.

D3 discloses in for example Figure 2 as well as page 6, last paragraph, an absorbent core (42) enclosed between a liquid impermeable backing sheet (40) and a material laminate in the form of a liquid permeable topsheet (38) and an acquisition/transfer layer (44), the acquisition/transfer layer laying proximal to the absorbent core. The topsheet and the acquisition/distribution layer are placed in face to face relationship, see also page 4, lines 12-22 of D3. The topsheet can be made out of woven and nonwoven materials, see page 7, lines 4-5. The acquisition/transfer layer is a porous and resilient sheet of material, see page 8, lines 17-21. Therefore, Claim element (b) is explicitly disclosed by D3.

D3 discloses page 7, lines 8-11, that the woven or nonwoven topsheet can be comprised of synthetic fibers (e.g. polymeric fibers such as polyester, polypropylene or polyethylene). D3 further discloses that the acquisition layer (44) can be made from any materials suitable for the purpose that are capable of having the topsheet 38 fused to them. The acquisition/transfer layer may be comprised of nonwoven materials made of synthetic or partially synthetic materials including polyester, polypropylene, polyethylene and so on. See last paragraph, page 8 to first paragraph, page 9 of D3. Therefore, Claim element (c) is explicitly disclosed by D3.

D3 discloses page 10, last paragraph, that the topsheet (38) and underlying acquisition layer (44) are bonded at a plurality of discrete bonded areas (52), see also claim 1. The topsheet is fused to the underlying layer, see page 11, 1<sup>st</sup> paragraph. The fusion bonding comprises a pattern of individual fusion bonds (52), see 1<sup>st</sup> line of 2<sup>nd</sup> paragraph page 11. Advantages of the fusion bonding are disclosed for example page 23, 3<sup>rd</sup> paragraph and page 24, lines 18- 22 of D3. Therefore, Claim element (d) is explicitly disclosed by D3.

D3 discloses for example in Figures 2 and 3 that the fusion bonds (52) extend in the thickness direction through the topsheet (38) and at least partially through the liquid acquisition/transfer layer (44). Therefore, Claim element (f) is explicitly disclosed by D3.

D3 further discloses that the absorbent core can comprises superabsorbent polymer material, see page 14, line 25, and page 15, line 4-5. Conventional superabsorbent polymer materials are partially neutralized superabsorbent. Furthermore preferred absorbent cores are said to be those disclosed in US 5, 009, 653 (D2), see page 15, line 22. D2 discloses partially neutralized, hydrogel-forming polymer material at column 5, line 4. See also especially column 5, lines 57 to 62 of D2. Therefore, Claim element (e) is explicitly disclosed by D3 too.

In conclusion D3 directly and unambiguously discloses all features of Claim 1 and hence is novelty destroying for claim 1.

#### 4.3 Lack of Novelty of Claim 1 (Art. 54 EPC) – Based on D4

EP-A-272 683 (D4) discloses absorbent articles, such as sanitary napkins, see page 1, lines 1-3. Therefore, Claim element (a) is explicitly disclosed by D4.

D4 discloses in for example Figure 2 as well as page 3, lines 16-21, an absorbent body (30) enclosed between a liquid impermeable backing sheet (22) and a material laminate in the form of a liquid permeable topsheet (14) and a transfer sheet (28), the transfer sheet laying proximal to the absorbent core. The topsheet is a fibrous sheet, see page 4, lines 16-20. The transfer sheet is a porous and resilient sheet of material, see page 4, line 27-32. Therefore, Claim element (b) is explicitly disclosed by D4.

D4 discloses page 4, lines 17-18, that the topsheet can be comprised of synthetic fibers like polyester, polypropylene, nylon or other heat-bondable fibers. Therefore, Claim element (c) is explicitly disclosed by D4.

As illustrated in Figure 2a and disclosed page 3, lines 27-30 of D4, as a result of the perforating process, the bonding locations are made resulting in perforations (50) with loose elements (52) that act as sucker feet to become entangled with the fibrous surface of the transfer layer (28). The sucker feet in contact with the transfer layer creates a dry-adhesive condition adhering the materials in contact, i.e. the topsheet (16) to the transfer layer (28), see page 4, lines 47-52. Therefore, Claim element (d) is explicitly disclosed by D4.

D4 discloses page 6, lines 26-27 that the depth of the aperture is preferred to be greater than the thickness of the cover liner to create the sucker foot effect. Figure 2a also discloses that this joining region extends at least partially through the transfer layer (28). Therefore, Claim element (f) is explicitly disclosed by D4.

D4 further discloses that the absorbent body comprises superabsorbent, like cross-linked highly absorbent polymers. Cross-linked superabsorbent polymers are partially neutralized superabsorbent. Therefore, Claim element (e) is explicitly disclosed by D4 too.

In view of above D4 directly and unambiguously discloses all features of Claim 1 and hence is novelty destroying for claim 1.

#### 4.4 Lack of Novelty of Claim 1 (Art. 54 EPC) – Based on D5

US 4, 397, 644 (D5) discloses absorbent articles, such as sanitary napkins, see column 1, line 1. Therefore, Claim element (a) is explicitly disclosed by D5.

D5 discloses in for example Figures 1-3 as well as column 3, lines 40-56, an absorbent body (15) enclosed between a liquid impermeable backing sheet (16) and a material laminate in the form of a liquid permeable topsheet (10) and a transfer sheet (14), the transfer sheet laying proximal to the absorbent body (15). The topsheet (10) is a fibrous sheet, see column 6, line 13.

The transfer sheet is a porous and resilient sheet of material, see column 5, line 67 to column 6, line 2. Therefore, Claim element (b) is explicitly disclosed by D5.

D5 discloses column 6, line 13, that the topsheet is a nonwoven thermoplastic web. The transfer sheet can be made too of thermoplastic fibers, see column 5, lines 50-52. Therefore, Claim element (c) is explicitly disclosed by D5.

The two sheets (10) and (14) are integrated together by bonding locations (11), see column 3, lines 57-63 as well as column 4, lines 6-10 of D5. D5 in column 5, lines 45-47, specifies further that 'fusing is the partial softening and/or melting of a thermoplastic material to provide bonds'. See also column 4, lines 11-18. Therefore, Claim element (d) is explicitly disclosed by D5.

Figures 2 and 3 also disclose that the joining regions extend in the thickness direction of the laminate (10,14) through the topsheet (10) and at least partially through the transfer layer (14). See also column 4, lines 19-22. Therefore, Claim element (f) is explicitly disclosed by D5.

D5 further discloses that the absorbent body comprises superabsorbent material, see column 8, lines 52 and lines 56-62. Therefore, Claim element (e) is explicitly disclosed by D5 too.

In view of above D5 directly and unambiguously discloses all features of Claim 1 and hence is novelty destroying for claim 1.

#### 4.5 Lack of Novelty of dependent Claims 2, 4-8 (Art. 54 EPC)

The feature claimed in **Claim 2** is disclosed in D3, see for example Figure 1.

The feature claimed in **Claim 4** is disclosed in D1 in first paragraph of page 25, in D3, page 11, 2<sup>nd</sup> paragraph, as well as in D5, see for example Figure 1.

The feature claimed in **Claim 5** is disclosed in D1 on page 29, lines 1-2, in D4, see Figure 2a, as well as in D5, see column 4, lines 19-22.

The feature claimed in **Claim 6** is disclosed in D1 page 10, 2<sup>nd</sup> paragraph, in D3, page 7, line 5, as well as in D5, see column 6, lines 12 and 48.

The feature claimed in **Claim 7** is disclosed in D4, page 4, lines 17-18.

The feature claimed in **Claim 8** is disclosed in D5, column 6, lines 3-5

Hence **claims 2, 4 to 8** lack novelty in view of cited art.

## 5. Lack of inventive step

### **5.1 Lack of Inventive Step of Claim 1 (Art. 56 EPC)**

In the event Claim 1 is found to be novel over either of D1, D3, D4 or D5, the opponent submits that it nevertheless lacks an inventive step over either of D1-D5, either individually or in combination.

D1, D3, D4 or D5 disclose every element of Claim 1, such that starting from any of these documents there is no problem to be solved and hence no inventive solution provided by claim 1. D1, D3, D4 or D5 disclose every element of Claim 1 in sufficient detail that one skilled in the art would find the claimed subject matter to be non-inventive as being directly known from D1, D3, D4 or D5 singly and/or in combination with D2.

The patent in suit mentions that the problem to be solved is to provide absorbent articles with improved fluid transfer properties from the topsheet to the absorbent core, resulting in drier surface against the wearer's skin, thereby reducing skin irritation. This problem is solved by two different means:

- A - using as body facing surface a laminate of a fibrous topsheet and underlying layer provided with thermally bonded locations to joint the two layers
- B - incorporating a partially neutralized super-absorbent in the absorbent body

Both these means are known from the cited art discussed in the novelty section to solve this problem.

For example US 4,397,644 (D5) discloses feature A (as detailed herein before) for the purpose of improved fluid transfer and resulting drier body facing surface, (see column 3, lines 1-5, column 4, lines 25-27). D5 also discloses the use of superabsorbent materials to provide absorption of fluid. As highlighted in the opposed patent conventional superabsorbent materials are partially neutralized material, see [9], page 2. Thus all features of claim 1 directly derive from D5.

Same analysis can be applied mutatis mutandis to any of the cited art discussed in details in the novelty section 4.

Absorbent articles with Feature A (i.e., all claim elements except (e)) are widely known from the art prior the priority date of the patent in suit, further references disclosing it include for example EP-A-106 473 (D6). For D6, see especially page 7, last paragraph to page 8, 1<sup>st</sup> paragraph, page 9, last paragraph to page 10, 1<sup>st</sup> paragraph, page 11, 2<sup>nd</sup> paragraph to page 12, line 18, page 13, lines 10-13.

### 5.2 Lack of Inventive Step of dependent Claims 2-11 (Art. 56 EPC)

The opponent submits that Claims 2-11 lack an inventive step over any of D1-D3, D4 or D5, either individually or in combination. The subject matter of claims 2-11 cannot be said to go beyond the normal progress of technology, but merely follows plainly or logically from any of D1-D3, D4, and/or D5, either alone or in combination.

It is well known by those skilled in the art to modify bonding locations pattern as regard their shape or distance relative to one another on the topsheet facing side of absorbent articles, like feminine protection articles, so as to optimize consumer aesthetic acceptance. Therefore, the pattern of bonded locations and groups claimed in claim 2 as well as claims 9-11 cannot be said to be more than those conventionally known by those skilled in the art, especially not in view of the disclosure of D3 and/or D5.

As regard claim 3, the superabsorbent claimed are well known in the art from, for example SE 9702298/GB9812625 (D7). The use of partially neutralized superabsorbent materials as claimed in claim 3 in absorbent articles and their effect on reducing skin irritations and bad odors is already known from D7. Thus the presence of the superabsorbent materials, as claimed in claim 3, do not impart an inventive merit to this claim. Claim 3 lack an inventive step over any of D1-D3, D4, D5, D6, either individually or in combination with D7.

Therefore, the opponent submits that the subject matter of dependent Claims 2-11 lacks an inventive step.

### 6. Conclusion

For the reasons given above, the Opponent submits that the invention is not sufficiently disclosed, therefore, the patent should be revoked.

For the reasons given above, the Opponent submits that Claims 1-11 of the European Patent-B-1 140 228 are to be revoked as they are neither novel within the terms of Art. 54 EPC, nor based on an inventive step within the terms of Art. 56 EPC.

In the event the patent cannot be revoked on the basis of the written submissions, the Opponent hereby requests oral proceedings (Article 116 EPC).

Yours truly,



Veronique Kremer  
Representative for the Opponent (G.A. 2048)

10. Dez. 2004

An das  
Europäische Patentamt

Tabulatoren-Positionen

nur für EPA

**I. Angegriffenes Patent**

Einspr.-Nr. OPPO (1)

Patentnummer

1 140 228

Anmeldenummer

99 964 875.1

Tag des Hinweises auf Erteilung (Art. 97(4), 99(1) EPÜ)

10.03.2004

**Bezeichnung der Erfindung (Titel):**

An absorbent article having a material laminate that comprises a liquid permeable top sheet and a liquid permeable liquid transfer sheet

**II. In der Patentschrift als erster/einziger genannter**
**Patentinhaber** SCA Hygiene Products AB
 

Zur Kasse

Zeichen des Einsprechenden oder Vertreters (maximal 15 Positionen)

17031523

OREF

**III. Einsprechender**

OPPO (2)

**Name**

Paul Hartmann AG  
Paul-Hartmann-Strasse 12  
89522 Heidenheim

**Staat des Wohnsitzes oder Sitzes**

DE

**Telefon/Telex/Telefax** Miteinsprechende siehe Zusatzblatt**IV. Bevollmächtigung**

OPPO (9)

**1. Vertreter**(Nur einen Vertreter angeben,  
dem zugestellt werden soll)**Name**

FRIZ, Oliver

**Geschäftsanschrift**

Dreiss, Fuhlendorf, Steimle & Becker  
Postfach 10 37 62

70032 Stuttgart

**Telefon/Telex/Telefax**

0711-24 89 38-0

0711-24 89 38-99

**Weitere zugelassene Vertreter** (siehe Zusatzblatt/Vollmacht)

OPPO (5)

**2. Angestellte(r) des Einsprechenden,  
die/der für dieses Einspruchs-  
verfahren gemäß Art. 133(3) EPÜ  
bevollmächtigt werden/wird**

Name(n):

**Vollmacht(en)** nicht erforderlich**Zu 1./2.** registriert unter Nr.

37210

45085

 beigefügt

38484

<b>V. Der Einspruch richtet sich gegen das erteilte Patent</b>		<b>nur für EPA</b>
<ul style="list-style-type: none"><li>— im gesamten Umfang <input checked="" type="checkbox"/></li><li>— im Umfang der Ansprüche Nr. <input type="text"/></li></ul>		
<b>VI. Einspruchsgründe:</b>		
Der Einspruch wird darauf gestützt, daß		
(a) der Gegenstand des europäischen Patents nicht patentfähig ist (Art. 100(a) EPÜ), weil er		
<ul style="list-style-type: none"><li>— nicht neu ist (Art. 52(1); 54 EPÜ)</li><li>— nicht auf einer erforderlichen Tätigkeit beruht (Art. 52(1); 56 EPÜ)</li><li>— aus sonstigen Gründen nämlich <input type="text"/> Art. <input type="text"/></li></ul>		<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>
von der Patentierbarkeit ausgeschlossen ist.		
(b) das europäische Patent die Erfindung nicht so deutlich offenbart, daß ein Fachmann sie ausführen kann (Art. 100(b) EPÜ, vgl. Art. 83 EPÜ). <input type="checkbox"/>		
(c) der Gegenstand des europäischen Patents über den Inhalt der Anmeldung/der früheren Anmeldung in der ursprünglich eingereichten Fassung hinausgeht (Art. 100(c) EPÜ, vgl. Art. 123(2) EPÜ). <input type="checkbox"/>		
<b>VII. Tatsachenvorbringen und Begründung</b> (Regel 55(c) EPÜ) erfolgt auf gesondertem Schriftstück (Anlage 1) <input checked="" type="checkbox"/>		
<b>VIII. Sonstige Anträge:</b> Hilfweise wird die Anberaumung eines Termins zur Durchführung einer mündlichen Verhandlung beantragt		

IX. Beweismittel		Beigeschlossen = <input checked="" type="checkbox"/> <input type="checkbox"/> wird / werden nachgereicht = <input type="checkbox"/>	nur für EPA <input type="checkbox"/>
A.	Veröffentlichungen:		
1 EP 0 617 602 B1			
Besonders relevant (Seite/Spalte/Zeile/Fig.):			
2 US 4,775,579			
Besonders relevant (Seite/Spalte/Zeile/Fig.):			
3 US 5,009,653			
Besonders relevant (Seite/Spalte/Zeile/Fig.):			
4 WO 98/27904			
Besonders relevant (Seite/Spalte/Zeile/Fig.):			
5 GB 2 114 445 A			
Besonders relevant (Seite/Spalte/Zeile/Fig.):			
6 US 4,654,039			
Besonders relevant (Seite/Spalte/Zeile/Fig.):			
7 EP 0 202 127 B1			
Besonders relevant (Seite/Spalte/Zeile/Fig.):			
		Fortsetzung auf Zusatzblatt	<input checked="" type="checkbox"/>
B. Sonstige Beweismittel		Weitere Angaben auf Zusatzblatt	

17031523/FRI/KOJ

9. Dezember 2004

**BEIBLATT**

**zum Einspruch gegen EP 1 140 228  
der SCA Hygiene Products AB**

**Fortsetzung von Feld Nr. IX. Beweismittel:**

**Veröffentlichung Nr. 8**

**EP 0 316 518 B1**

nur für EPA

**X. Zahlung der Einspruchsgebühr erfolgt**

wie auf beigefügtem Gebührenzahlungsvordruck (EPA Form 1010) angegeben

**XI. Liste der Unterlagen:**Anlage  
Nr.:

Stückzahl:

0	<input checked="" type="checkbox"/> Einspruchsformblatt	<input type="text" value="3"/> (mind. 2)
1	<input checked="" type="checkbox"/> Tatsachen und Begründung (s. VII.)	<input type="text" value="3"/> (mind. 2)
2	Kopien von als Beweismittel angegebenen (s. IX.)	
2a	<input checked="" type="checkbox"/> — Veröffentlichungen	<input type="text" value="3"/> (mind. je 2)
2b	<input type="checkbox"/> — sonstigen Unterlagen	<input type="text"/> (mind. je 2)
3	<input type="checkbox"/> Unterzeichnete Vollmacht(en) (s. IV.)	<input type="text"/>
4	<input checked="" type="checkbox"/> Gebührenzahlungsvordruck (s. X.)	<input type="text" value="1"/>
5	<input type="checkbox"/> Scheck	<input type="text"/>
6	<input checked="" type="checkbox"/> Zusatzblatt (Zusatzblätter)	<input type="text" value="3"/> (mind. je 2)
7	<input checked="" type="checkbox"/> Sonstige Unterlagen (bitte einzeln anführen):	<input type="text" value="3"/>

**Merkmalsanalyse****XII. Unterschrift  
des Einsprechenden oder Vertreters**

Ort Stuttgart

Datum 9. Dezember 2004



O. Fritz

Patentanwalt

Zusammenschluss Nr. 86

Name des (der) Unterzeichneten bitte mit Schreibmaschine wiederholen. Bei juristischen Personen bitte die Stellung des (der) Unterzeichneten innerhalb der Gesellschaft mit Schreibmaschine angeben

17031523/FRI/KOJ

9. Dezember 2004

**BEIBLATT**

**zum Einspruch gegen EP 1 140 228  
der SCA Hygiene Products AB**

Fortsetzung von Feld Nr. IV. (Bevollmächtigung):

Als weitere Vertreter werden bestellt:

2. OLTmann, Eckhard, Dr.  
Steigstraße 59  
89520 Heidenheim  
DE  
(AV 38484)

- zugelassener Vertreter Nr. 127 650 -

3. SAUER, Piet, Dr.  
Paul-Hartmann-Straße 12  
89522 Heidenheim  
DE  
(AV 45085)

Die Vertreter sind Angestellte der Einsprechenden.

Amtliche Zustellungen sollen ausschließlich an den unter 1. genannten Vertreter erfolgen.

# DREISS, FUHLENDORF, STEIMLE & BECKER

PATENTE · MARKEN · DESIGN

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EUROPEAN PATENT ATTORNEYS  
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Claus Simandi<sup>1)</sup> Dipl.-Chem.

Ihr Zeichen / Your Ref.

Unser Zeichen / Our Ref.

Datum / Date

17031523/FRI/KOJ

09.12.2004

## Einspruch gegen EP 1 140 228

Patentinhaberin: SCA Hygiene Products AB, Göteborg, SE

Einsprechende: Paul Hartmann AG, Heidenheim, DE

Namens und im Auftrag der Paul Hartmann Aktiengesellschaft legen wir gegen die Erteilung des Europäischen Patents 1 140 228

## E I N S P R U C H

ein und beantragen, das europäische Patent gemäß Artikel 102 (1) in Verbindung mit Artikel 100 a) EPÜ zu widerrufen.

## B E G R Ü N D U N G :

Das europäische Patent ist zu widerrufen, da sein Gegenstand nicht neu ist (Artikel 54 EPÜ) und jedenfalls nicht auf erfinderischer Tätigkeit beruht (Artikel 56 EPÜ).

Gegenstand des Patents, Aufgabe, Lösung:

Gemäß Abschnitt [0001] betrifft die vermeintliche Erfindung absorbierende Hygieneartikel mit einem Topsheet-Laminat, welches eine flüssigkeitsdurchlässige äußere Topsheet-Lage und eine diesbezüglich Körperabgewandt angeordnete Flüssigkeitsverteilerschicht ("liquid transfer sheet") aufweist.

Im Abschnitt [0002] sind Probleme absorbierender Hygieneartikel angesprochen, nämlich

- skin irritation
- problems associated with body waste odours.

Diese Probleme können entstehen

- as a result of occlusion,
- the presence of moisture, and
- of mechanical microbial and enzymatic factors
- as a result of or in conjunction with an increase in pH.

Es wird im Abschnitt [0003] darauf hingewiesen, dass es beispielsweise aus US 3,794,034 bereits bekannt ist, durch Puffersubstanzen den pH-Wert innerhalb des eingenässten Artikels zwischen 3,5 und 6,0 zu halten, was sich im Hinblick auf die Verhinderung eines unerwünschten Bakterienwachstums und damit einhergehendes Auftreten unerwünschter Gerüche als positiv erweise.

Gemäß Abschnitt [0004] sei aus der nicht vorveröffentlichten schwedischen Anmeldung SE 9702298-2 eine pH-regulierende Substanz in Form von teilweise neutralisiertem

superabsorbierendem Material bekannt, welches den pH-Wert zwischen 3,5 und 4,9 stabilisiert.

Gemäß Abschnitt [0005] liege der vermeintlichen Erfindung die Aufgabe zugrunde, in noch weitergehendem Maße Hautreizungen zu vermeiden:

*"... reduce the risk of skin irritations still further ...".*

Diese Aufgabe werde gelöst durch die Verwendung von teilweise neutralisiertem superabsorbierendem Material in einem Absorptionskörper und durch ein flüssigkeitsdurchlässiges faseriges Topsheet, welches thermisch an ein poröses "liquid transfer sheet" in diskreten Regionen gebunden ist. Der nachfolgende Abschnitt [0006] entspricht weitestgehend dem Wortlaut des erteilten Anspruchs 1, der mit den Merkmalen 1.1 bis 1.14 gemäß beigefügter Merkmalsanalyse den Gegenstand des europäischen Patents bezeichnet.

In den nachfolgenden Abschnitten [0007] bis [0010] werden Vorteile der Anspruchsmerkmale, nämlich des faserigen Topsheets, der thermisch mit dem Topsheet verbundenen Flüssigkeitsverteilerschicht und der Verwendung von teilweise neutralisiertem superabsorbierendem Material erläutert. Diese Merkmale mit ihren hierdurch erzielten Vorteilen sind jedoch bereits auf dem Gebiet der absorbierenden Hygieneartikel bekannt, was nachfolgend dargelegt werden wird.

Fehlende Neuheit, Anspruch 1, EP 0 617 602 B1:

Der Gegenstand des Anspruchs 1 des Streitpatents ist nicht neu gegenüber **EP 0 617 602 B1 (im Folgenden E1).**

E1 offenbart einen absorbierenden Artikel der hier in Rede stehenden Art, der ebenfalls ein körperkontaktierendes Laminat umfasst.

Gemäß Spalte 2, Zeilen 45 bis 47 besteht die Aufgabe:

*"Thus, a need exists for absorbent articles having improved bonding between their layers, particularly between the uppermost fluid pervious layers".*

Dabei soll die Flüssigkeitsaufnahme durch die verbesserte Bindung nicht beeinträchtigt werden. Hierzu führt Seite 2, Zeilen 52 bis 54 aus:

*"It is another object of the present invention to provide absorbent articles having liquid pervious layers bonded at bond sides that provide structures that do not interfere with the acquisition of liquids into the absorbent layer".*

Der Schichtenaufbau des absorbierenden Artikels nach E1 ist wie folgt:

Ein körperkontaktierendes Laminat umfasst ein Topsheet 28 und eine darunter angeordnete "acquisition layer" 34, die durch "fusion bonding" miteinander verbunden sind. Dies ergibt sich aus Figur 8 und aus Figur 2 und aus dem Abschnitt "fusion of the topsheet to the acquisition layer" in Spalte 15, Zeile 26 ff.

Unterhalb dieses Laminats ist ein Absorptionskörper 32 vorgesehen, dessen Zusammensetzung beispielsweise in Spalte 23, Zeile 12 ff. erläutert ist.

Der vorbekannte absorbierende Artikel offenbart unproblematisch die Merkmale 1.1 bis 1.5 sowie 1.7 und 1.8.

Zwar geht aus E1 hervor, dass bevorzugtermaßen ein "film topsheet 28" verwendet werden kann. Spalte 6, Zeile 43 ff. offenbart jedoch, dass ein geeignetes Topsheet 28 auch aus "woven and nonwoven materials", also aus Fasern, gebildet sein kann und weiter

*"suitable woven and nonwoven materials can be comprised of natural fibers (e. g., wood or cotton fibers), synthetic fibers, ..."*

(Spalte 6, Zeilen 48 ff.). Diese Textstelle offenbart daher auch einen absorbierenden Artikel mit einer körperzugewandten Topsheetschicht des Laminats mit Fasern und damit das Merkmal 1.6.

Obschon E1 in "film-topsheet" bevorzugt, werden ausdrücklich auch faserige Topsheets als geeignet offenbart, beispielsweise in Spalte 7, Zeilen 32 bis 34:

*"Still other material suitable for use as a topsheet are described in U.S. Patent 4,775,579 ...".*

Wir fügen eine Kopie von US 4,775,579 (im Folgenden E2) bei. Diese Druckschrift offenbart ein "nonwoven elastic fabric", also mithin ein Faservlies, welches gemäß der zitierten Textstelle als körperzugewandte Topsheetlage des Laminats ausdrücklich geeignet sein soll. Auch aus diesem Grund ist das Merkmal 1.6 durch E1 neuheitsschädlich vorweggenommen.

Wie bereits angedeutet, sind die Schichten des körperzugewandten Laminats auch miteinander verbunden, und zwar an diskreten Stellen. Dies stellt den Kern der Lehre von E1 dar. Es wird insoweit auf Anspruch 1 hingewiesen, der in Spalte 35, Zeile 34 ff. ausführt:

*"... said topsheet is fused to said underlying layer (32, 34) wherein said absorbent article (20) is characterized in that said individual bonded areas (44) penetrate the topsheet (28) and at least part of the way into the thickness of said underlying layer (32, 34) without penetrating the garment-facing face of said backsheet (30), and at least some of said bonded areas (44) provide structures with drainage passageways for liquids to pass through to said underlying layer (34)".*

Es sei auch auf die Ausführungen im Abschnitt "summary of the invention" in Spalte 3, Zeilen 33 bis 43 von E1 hingewiesen.

Das Laminat nach E1 umfasst aber auch ein thermoplastisches Material. Dies ergibt sich insbesondere aus Spalte 13, Zeilen 45 bis 48:

*"The material comprising the acquisition layer 34 may have melting temperatures in different embodiments that are less than, equal to, or greater than that of the topsheet 28".*

In Verbindung mit den vorausgehend zitierten Textstellen ergibt sich aber, dass die Lagen des Laminats nach E1 gemäß den Merkmalen 1.9 bis 1.11 und 1.14 des Anspruchs 1 des Streitpatents miteinander verbunden sind.

Gemäß Spalte 22, Zeilen 54 bis 57 und Spalte 53, Zeilen 12 bis 14 umfasst der Absorptionskörper 32 superabsorbierende Polymermaterialien, wodurch auch das Merkmal 1.12 vorweggenommen ist.

Das weitere Merkmal 1.13, wonach das superabsorbierende Material ein teilweise neutralisiertes superabsorbierendes Material ist, wird durch den Hinweis in Spalte 23, Zeile 22 auf US-Patent 5,009,653 offenbart.

Der Verweis auf **US 5,009,653 (im Folgenden E3)** betrifft insbesondere die bevorzugten superabsorbierenden Polymermaterialien. Dies ergibt sich aus Spalte 23, Zeile 16 ff. des Streitpatents:

*"The characteristics of the absorbent core 32 (including, but not limited to the preferred types of polymer materials used therein, and types of methods which can be used for preparing these polymer particles) are described in greater detail in ... US 5,009,653 ..."*

(Unterstreichung diesseits hinzugefügt).

E3, Spalte 5, Zeilen 1 bis 5 nennen teilweise neutralisiertes superabsorbierendes Material, dort ist ausgeführt:

*"The polymeric gelling agent which is employed in the absorbent core 34 will generally comprise particles of a substantially water-insoluble, slightly cross-linked, partially neutralized, hydrogel-forming polymer material"*

(Unterstreichung diesseits hinzugefügt).

Weitere Ausführungen zu dem Merkmal der teilweisen Neutralisierung superabsorbierender Materialien finden sich in E3, Spalte 5, Zeilen 57 ff.

Durch den spezifischen Verweis auf E3 hinsichtlich der superabsorbierenden Materialien, die im Absorptionskörper 32 von E1 Verwendung finden sollen, ist auch das Merkmal 1.13 der Verwendung teilweise neutralisierter superabsorbierender Materialien offenbart.

E1 offenbart daher sämtliche Merkmale des Anspruchs 1 des Streitpatents und ist somit neuheitsschädlich.

**Fehlende Neuheit, Anspruch 1, WO 98/27904:**

Der Gegenstand des Anspruchs 1 des Streitpatents ist neuheitsschädlich vorweggenommen durch **WO 98/27904 (im Folgenden E4)**.

E4 offenbart einen absorbierenden Hygieneartikel mit einem Absorptionskörper 42 und einem körperzugewandt angeordneten Laminat aus einem körperzugewandten flüssigkeitsdurchlässigen Topsheet 38 und einer Flüssigkeitsverteilerschicht 44 ("acquisition component" oder "acquisition layer 44"), die beide an einer Mehrzahl von einzelnen Bindepunkten miteinander verbunden sind. Dies ergibt sich bereits aus dem Anspruch 1 von E4 und aus den Figuren.

Seite 6, Zeile 3 von unten erwähnt ein "composite topsheet" aus der eigentlichen flüssigkeitsdurchlässigen Topsheetlage 38 und der "acquisition component 44". Die "acquisition component" oder "acquisition layer 44" ist gemäß Seite 8, dritter Absatz porös

("provide void volume beneath the topsheet 38") und sie weist auch eine hohe Bauschelastizität ("resiliency") auf.

Gemäß Seite 7, Zeilen 4 ff. kann das Topsheet 38 insbesondere aus "woven or nonwoven materials", insbesondere mit "natural fibers (e. g., wood or cotton fibers), synthetic fibers (e. g., polymeric fibers such as polyester, polypropylene, or polyethylene fibers) or from a combination of natural and synthetic fibers" gebildet sein. Obschon gemäß Seite 7, Zeile 12 von E4 Film-Topsheets der Vorzug gegeben wird, offenbart die vorgenannte Textstelle auch ein faseriges Topsheet gemäß Merkmal 1.6.

Damit offenbart E4 aber unproblematisch einen absorbierenden Artikel mit den Merkmalen 1.1 bis 1.8.

Die Verbindung des Topsheets 38 und der Verteilerschicht 44 ist in E4, auf Seite 10, dritter und vierter Absatz sowie Seite 11, erster Absatz beschrieben. Danach ergibt sich eine Verbindung durch "fusion bonding". Dies setzt aber voraus, dass zumindest in einer der Lagen 38, 44 ein thermoplastisches, also wärmeschmelzbares Material vorgesehen ist. E4, Seite 10, vierter Absatz erläutert, dass eine Vielzahl diskreter Bindepunkte ("bonded areas or bonds 52") vorgesehen sind. Diese werden auf Seite 11, Zeile 1 als "fusion bonds 52" bezeichnet. Es findet sich der Hinweis:

*"The fusion can be accomplished by heat and/or pressure bonds, ultrasonic bonds,  
...".*

Seite 11, Zeilen 6; 7 lauten:

*"Suitable means that can be adapted for use in fusing the topsheet 38 to the  
acquisition component 44 are described in at least some of the following patents:  
... PCT-Publication No. WO 93/11725".*

Bei der letztgenannten WO 93/11725 handelt es sich um die PCT-Veröffentlichung zu E1, die ja ebenfalls eine punktuelle durch Schmelzbindungen an diskreten Stellen herbeigeführte Verbindung von Topsheet und Verteilerschicht offenbart und lehrt.

Somit ist das Topsheet 38 und die Flüssigkeitsverteilerschicht 44 entsprechend den Merkmalen 1.9 bis 1.11 miteinander verbunden.

Das Merkmal 1.14 folgt aus den Figuren 2 und 3, aus denen ersichtlich ist, dass sich die Bindepunkte in Dickenrichtung des Topsheetlaminats durch das Topsheet hindurch und zumindest teilweise in die Flüssigkeitsverteilerschicht 44 hineinerstrecken. Außerdem ergibt sich das Merkmal durch den expliziten Verweis auf E1, der dieses Merkmal 1.4 expressis verbis im Anspruch 1 offenbart.

Der Absorptionskörper 42 des Artikels nach E4 umfasst auch superabsorbierendes Material, was sich aus Seite 14, dritter Absatz sowie Anspruch 24, letzte Zeile von E4 ergibt, so dass auch das Merkmal 1.12 vorbekannt ist.

Das noch verbleibende Merkmal 1.13 der Verwendung von teilneutralisiertem superabsorbierendem Material ergibt sich durch den expliziten Hinweis auf Seite 15, zweiter Absatz von E4 auf US 5,009,653 (= E3).

Damit offenbart E4 einen absorbierenden Artikel mit sämtlichen Merkmalen 1.1 bis 1.14 des Anspruchs 1 des Streitpatents. Dieser ist daher nicht neu.

#### Fehlende erfinderische Tätigkeit, Anspruch 1, GB 2 114 445 A:

Der Gegenstand des Anspruchs 1 des Streitpatents ist ausgehend von **GB 2 114 445 A (im Folgenden E5)** nahegelegt.

E5 offenbart einen absorbierenden Artikel der hier in Rede stehenden Art, der bis auf das Merkmal 1.13 ("partially neutralized superabsorbent") alle Merkmale offenbart. Man erkennt schon aus den Figuren ein körperzugewandtes Laminat aus einer körperzugewandten

Topsheetlage 10 ("pervious cover 10") und einer "thermoplastic-containing comfort enhancing layer 14" (Seite 2, Zeile 35). Auf Seite 3, Zeile 1 ist die "comfort enhancement layer 14" auch als "transfer layer 14a" bezeichnet.

Zur Verbindung dieser beiden Schichten führt Seite 2, Zeile 55 übergreifend auf Seite 3 aus. Insbesondere beschreibt Seite 2, Zeilen 59, 60:

*"The bonding step may, in fact, produce holes in the cover material itself which may extend into the comfort enhancement layer depending upon the severity of the bonding treatment".*

Seite 2, Zeile 55 erwähnt:

*"Bonding to accomplish integration can be by the application of heat, such as by hot calender embossing, ...".*

Hieraus folgt aber, dass zwangsläufig ein wärmeschmelzbares Material vorgesehen sein muss. Dies folgt aber auch aus Seite 2, Zeile 8, wo ausgeführt ist:

*"Fluid permeable transfer layer including a thermoplastic material".*

Aus den vorstehend zitierten Textstellen von E5 und auch aus den Figuren von E5 folgt ohne weiteres ein absorbierender Artikel mit einem Topsheetlaminat mit den Merkmalen 1.1 bis 1.5 und 1.7 bis 1.9.

Das Merkmal 1.6 ("fibrous sheet") ergibt sich für das Topsheet durch die Erwähnung von Fasern auf Seite 2, Zeile 56 und expressis verbis aus Seite 3, Zeile 64.

Topsheetlage 10 und Verteilerschicht 14, 14a ("transfer layer 14a") sind auch miteinander durch individuelle Bindepunkte verbunden. Die Druckschrift E5 spricht von "transfer layer integrated with the cover layer" (Seite 4, Zeile 27) und "integration of the cover 10 to the transfer layer 14a" (Seite 2, Zeile 65, Seite 3, Zeile 1).

Diese Verbindung erfolgt aber durch Schmelzbindungen. E4 erwähnt auf Seite 3, Zeile 28 "when integration is by fusing" und auf Seite 3, Zeilen 44, 45 "fusing as defined herein is the partial softening and/or melting of a thermoplastic material to provide bonds with the thermoplastic".

Weiter ist festzustellen, dass die Schichten, wenn sie, wie in E4 ausgeführt, durch Schmelzbindungen ("by fusing") miteinander verbunden werden, wodurch "integration sites 11" gebildet werden, die Merkmale 1.10, 1.11 und 1.14 erfüllen und damit vorwegnehmen.

Des Weiteren offenbart Seite 5, Zeile 50 superabsorbierende Materialien für den Absorptionskörper 15, so dass auch das Merkmal 1.12 vorbekannt ist.

Hier von unterscheidet sich der Gegenstand des Anspruchs 1 des Streitpatents nur durch das Merkmal 1.13, wonach es sich bei dem superabsorbierenden Material um teilneutralisiertes superabsorbierendes Material handelt.

Hier von ausgehend kann das der vermeintlichen Erfindung allenfalls zugrundeliegende Problem aber allein darin gesehen werden, ein superabsorbierendes Material zu wählen, welches im Betrieb des Hygieneartikels keine unerwünschten Sekundäreffekte, wie Gerüche oder Hautreizungen mit sich bringt.

Zur Lösung des Problems wird der Fachmann aber in naheliegender Weise teilneutralisierte superabsorbierende Materialien verwenden.

Seit ungefähr 10 Jahren umfasst jeder moderne Hygieneartikel solche teilneutralisierten superabsorbierenden Materialien. Sie waren zum Prioritätszeitpunkt des Streitpatents (1998) bereits hinlänglich bekannt und wurden zu diesem Zeitpunkt bereits massenhaft verwendet.

Eine Basis-Druckschrift zu teilneutralisierten superabsorbierenden Materialien ist **US 4,654,039 (im Folgenden E6)**. Aber auch **EP 0 202 127 B1 (im Folgenden E7)** und **EP 0 316 518 B1 (im Folgenden E8)** offenbaren und lehren die Verwendung teilweise

neutralisierter superabsorbierender Materialien zur besseren pH-Steuerung bei der Einnässung von Hygieneartikeln mit Körperflüssigkeiten.

E7 befasst sich gemäß Seite 2, Zeile 5 mit der Verhinderung oder Verringerung von "diaper rash", also der Verringerung von Hautirritationen. Auf Seite 2, Zeile 21 ist ein unkontrolliertes Bakterienwachstum, welches diesbezüglich nachteilig ist, erwähnt. Auf Seite 2, Zeile 32 wird die Erkenntnis erläutert, dass ein pH-Wert zwischen 3,0 und 5,5 vorteilhafterweise einzuhalten ist.

Um dies zu erreichen, offenbart und lehrt E7, teilneutralisierte Hydrogelpartikel, also teilneutralisierte superabsorbierende Materialien, zu verwenden. Anspruch 1 von E7 erwähnt:

*"... highly neutralized hydrogel material having at least 50 % of its acidic functional groups neutralized with salt-forming cations".*

E7 mag also die Vorbekanntheit und Vorteilhaftigkeit der Verwendung von teilneutralisiertem superabsorbierendem Material zeigen. Ein solches vorbekanntes Material auch bei einem absorbierenden Hygieneartikel nach E5 einzusetzen, vermag eine erforderliche Tätigkeit nicht zu begründen.

Aber auch E8 befasst sich mit der Einhaltung eines pH-Wertbereichs im leicht sauren Medium und führt hierzu auf Seite 2, Zeilen 52 bis 54 aus:

*"Die Lösung dieser Aufgabe ist durch die Beobachtung möglich geworden, dass es gelingen kann, die Quellstoffe selbst, welche chemisch betrachtet polymere Säuren sind, als Puffersubstanzen einzusetzen. Sie müssen hierzu mit Alkalimetallen und/oder Ammoniak derart teilneutralisiert werden, dass sich im Zellstoff-Saugkörper bei Benetzung mit Wasser oder einer physiologischen Flüssigkeit der erforderliche pH-Wert zwischen 5,0 und 6,0, vorzugsweise zwischen 5,2 und 5,5 einstellt".*

Der Gegenstand des Anspruchs 1 des Streitpatents war daher ausgehend von E5 unter Berücksichtigung von Fachwissen, insbesondere unter Berücksichtigung von E6 oder E7 oder E8, nahegelegt.

Zu den Unteransprüchen:

Die weiteren Merkmale des Anspruchs 2, welche sich auf die Anordnung der Fügepunkte ("bonding locations") in dem Topsheetlaminat beziehen, sind unproblematisch durch die Anordnung der Fügestellen 52 nach Figur 1 von E4 vorbekannt. Dieses weitere Merkmal vermag daher nicht zu einem gewährbaren Anspruchsgegenstand zu führen.

Nach dem weiteren Merkmal des Anspruchs 3 sollen teilneutralisierte superabsorbierende Materialien eingesetzt werden, deren Neutralisierungsgrad derart ist, dass sich in dem eingenässten Hygieneartikel ein pH zwischen 3,5 bis 4,9 einstellt. Dieser Bereich ist durch E7, Seite 2, Zeile 32 vorbekannt. Dieses weitere Merkmal vermag daher keine erfinderische Tätigkeit zu begründen.

Nach dem weiteren Merkmal des Anspruchs 4 sollen punktförmige, linienförmige, rechteckige oder kreisförmige Fügestellen ("bonds") verwendet werden. Dies ist aus E1, Spalte 16, Zeilen 28 bis 34 bekannt, aber auch aus E4, Figur 1 und Seite 11, zweiter Absatz und aus E5, Figur 2.

Gemäß Anspruch 5 sollen in dem Topsheet Durchtrittsöffnungen ("through-penetrating holes") innerhalb der Fügestellen vorgesehen sein. Dies ist expressis verbis aus E5, Seite 2, Zeilen 59, 60 bekannt, die eingangs zitiert wurden.

Nach Anspruch 6 soll das Topsheet aus einem Vliesmaterial gebildet sein. Dies ist bekannt aus E1, Spalte 6, Zeilen 43 bis 50, aus E4, Seite 7, erster Absatz und aus E5, Seite 3, Zeile 64. Die Verwendung kardierter Vliesmaterialien, also Stapelfaservliese, als Topsheetmaterialien (Anspruch 7) stellt eine für sich genommen bekannte Maßnahme dar, die bei einem absorbierenden Hygieneartikel keine erfinderische Tätigkeit begründen kann.

Die Dickenangabe für die Flüssigkeitsverteilerschicht im Anspruch 8 von 0,5 bis 4 mm ist durch E5, Seite 3, Zeilen 59, 60 und Figur 2 vorweggenommen; dort ist eine Dicke von 1 bis 10 mm erwähnt.

Der mit Anspruch 9 beanspruchte Abstand von Gruppen von Fügepunkten dürfte sich aus Figur 1 von E4 ableiten lassen. Es bleibt offen, weshalb eine solche Ausgestaltung sich als technisch vorteilhaft erweisen soll, etwa gegenüber einer größeren oder geringeren Entfernung der Gruppen von Fügepunkten voneinander.

Desgleichen erscheint der relative Abstandsbereich und der absolute Abstandsbereich, der mit den Ansprüchen 10 und 11 beansprucht wird, willkürlich; eine erforderliche Tätigkeit kann hierin jedenfalls nicht gesehen werden. Dessen ungeachtet sind Anordnungen von Fügepunkten nach den Merkmalen der Ansprüche 9 bis 11 vorbekannt und vermögen eine erforderliche Tätigkeit nicht zu begründen.

Das Patent ist somit zu widerrufen.



(O. Friz)  
Patentanwalt

Zusammenschluss Nr. 86

Anlagen:

2 Mehrschriften  
Merkmalsanalyse

**Merkmalsanalyse zu Anspruch 1 von EP 1 140 228**

- 1.1 An absorbent article, such as a diaper, sanitary napkin, incontinence protector, wound dressing or the like,
- 1.2 comprising an absorbent body (12)
- 1.3 enclosed between a liquid-impermeable backing sheet (11) and
- 1.4 a material laminate (1)
- 1.5 in the form of a liquid permeable sheet of material (2) forming a top sheet (2),
- 1.6 which sheet is a fibrous sheet,
- 1.7 and a liquid-permeable, porous and resilient sheet of material (3), forming a liquid transfer sheet (3) lying proximal to the absorbent body (12),
- 1.8 wherein the laminate (1) has a planar extension and a thickness direction perpendicular to said planar extension,
- 1.9 wherein at least one of the sheets (2, 3) includes thermoplastic material, and
- 1.10 wherein the two sheets (2, 3) are joined together through the medium of bonding locations (4) on the laminate (1)
- 1.11 within which the thermoplastic material is caused to at least partially soften or melt and thereby join together said two sheets (2, 3),

characterised in that

- 1.12 the absorbent body includes superabsorbent,
- 1.13 which superabsorbent is partially neutralised superabsorbent; and
- 1.14 in that the sheet-joining regions of the laminate extend in the thickness direction of said laminate (1) through the top sheet (2) and at least partially through the liquid transfer sheet (3).

17

10. Dez. 2004

To the  
European Patent Office

## Notice of Opposition to a European Patent

Registration marks

## I. Patent opposed

Zur Kasse  
A. € 670,-

Date of mention of the grant in the European Patent Bulletin  
(Art. 97(4), 99(1) EPC)

O III

Opp. No. OPPO (1)

EP1 140 228

99 964 875.1

March 10, 2004

for EPO use only

## Title of the invention:

AN ABSORBENT ARTICLE HAVING A MATERIAL LAMINATE THAT COMPRISSES A LIQUID PERMEABLE TOP SHEET AND A LIQUID PERMEABLE LIQUID TRANSFER SHEET

## II. Proprietor of the Patent

SCA HYGIENE PRODUCTS AB

first named in the patent specification

Opponent's or representative's reference (max. 15 spaces)

EPE 621

OREF

## III. Opponent

Name

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place of business

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Telephone/Telex/Fax

Multiple opponents

 further opponents see additional sheet

## IV. Authorisation

## 1. Representative

(Name only one representative to whom notification is to be made)

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OPPO (5)

2. Employee(s) of the opponent  
authorised for these opposition  
proceedings under Art. 133(3)  
EPC

Name(s):

## Authorisation(s)

 not considered necessary

To 1./2.

 has/have been registered  
under No. \_\_\_\_\_ is/are enclosed

for EPO use only

**V. Opposition is filed against**

- the patent as a whole
- claim(s) No(s).

**VI. Grounds for opposition:****Opposition is based on the following grounds:**

(a) the subject-matter of the European patent opposed is not patentable (Art. 100(a) EPC)  
because:

- it is not new (Art. 52(1); 54 EPC)
- it does not involve an inventive step (Art. 52(1); 56 EPC)
- patentability is excluded  
on other grounds, i. e.   
Art.

(b) the patent opposed does not disclose the invention in a manner sufficiently clear and complete  
for it to be carried out by a person skilled in the art (Art. 100(b) EPC; see Art. 83 EPC).

(c) the subject-matter of the patent opposed extends beyond the content of the application/  
of the earlier application as filed (Art. 100(c) EPC, see Art. 123(2) EPC).

**VII. Facts and arguments**

(Rule 55(c) EPC)

presented in support of the opposition are submitted herewith on a separate sheet (annex 1) (see Reasoned Statement)**VIII. Other requests:**(see Reasoned Statement)

<b>IX. Evidence presented</b>  (see Reasoned Statement)		for EPO use only
		Enclosed = <input checked="" type="checkbox"/>
		will be filed at a later date = <input type="checkbox"/>
<b>A. Publications:</b>		Publication date
1		
Particular relevance (page, column, line, fig.):		
2		
Particular relevance (page, column, line, fig.):		
3		
Particular relevance (page, column, line, fig.):		
4		
Particular relevance (page, column, line, fig.):		
5		
Particular relevance (page, column, line, fig.):		
6		
Particular relevance (page, column, line, fig.):		
7		
Particular relevance (page, column, line, fig.):		
		Continued on additional sheet <input type="checkbox"/>
<b>B. Other evidence</b>		
		Continued on additional sheet <input type="checkbox"/>

**X. Payment of the opposition fee is made**

as indicated in the enclosed voucher for payment of fees and costs (EPO Form 1010)

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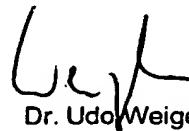
**XI. List of documents**

Enclosure No.		Nb. of copies
0	<input checked="" type="checkbox"/> Form for notice of opposition	<input type="text" value="2"/> (min. 2)
1	<input checked="" type="checkbox"/> Facts and arguments (see VII.)	<input type="text" value="2"/> (min. 2)
2	Copies of documents presented as evidence (see IX.)	
2a	<input checked="" type="checkbox"/> — Publications	<input type="text" value="2"/> (min. 2 of each)
2b	<input type="checkbox"/> — Other documents	<input type="text"/> (min. 2 of each)
3	<input type="checkbox"/> Signed authorisation(s) (see IV.)	<input type="text"/>
4	<input checked="" type="checkbox"/> Voucher for payment of fees and costs (see X.)	<input type="text" value="1"/>
5	<input type="checkbox"/> Cheque	<input type="text"/>
6	<input type="checkbox"/> Additional sheet(s)	<input type="text"/> (min. 2 of each)
7	<input checked="" type="checkbox"/> Other (please specify here): Receipt for documents	<input type="text" value="1"/>

**XII. Signature  
of opponent or representative**GRÜNECKER, KINKELDEY, STOCKMAIR  
& SCHWANHÄUSSER  
ANWALTSSOZIETÄT

Place Munich,

Date December 10, 2004

  
 Dr. Udo Weigelt

Please type name under signature. In the case of legal persons, the position which the person signing holds within the company should also be typed.

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 (-1996)

IHR ZEICHEN / YOUR REF.

UNSER ZEICHEN / OUR REF.

EPE621UWica

DATUM / DATE

10.12.2004

## REASONED STATEMENT REGARDING THE OPPOSITION AGAINST THE EUROPEAN PATENT 0 960 645

**including facts and arguments (Sect. VII as referred to in EPO form 2300)**  
**including further requests (Sect. VIII as referred to in EPO form 2300)**  
**including evidence presented (Sect. IX as referred to in EPO form 2300)**

## I. REQUESTS

It is requested that

1. the European Patent EP 1 140 228 be revoked in its entirety, and
2. Oral proceedings be scheduled for the case that the opposition division is unable to grant the request under 1. in written proceedings.

## II. REASONS

To support the above requests, the following documents are submitted:

D0: EP 1 140 228 B1, Granted Patent, priority date December 16, 1998  
D0': Feature Analysis of Granted Claim 1.  
D1: WO 93/11725, published June 24, 1993  
D2: US 5,009,653, published April 23, 1991  
D3: EP 0 456 136 A2, published November 13, 1991  
D4: M 9705067, published November 25, 1997

### 1. Claim 1 of the Granted Patent

The request to revoke the patent in its entirety is justified, since Claim 1 of the patent is lacking novelty in view of D1 (referring to D2), and lacking an inventive step in view of a combination of D1 and D3.

**1.1. Feature Analysis of Claim 1 and Interpretation of Claim 1**

Claim 1 of the patent refers to an:

- (1.0)       **Absorbent article comprising:**
- (1.1)       **an absorbent body**
- (1.1.1)      **including partially neutralized superabsorbent,**  
*(corresponding to: including superabsorbent having a degree of neutralisation of less than 70%)*
- (1.2)       **a liquid-impermeable backing sheet**
- (1.3)       **a material laminate**
- (1.3.1)      **in the form of a liquid-permeable, fibrous sheet of material forming a top sheet, and**
- (1.3.2)      **liquid-permeable, porous, and resilient sheet of material forming a transfer sheet, lying proximal to the absorbent body;**
- (1.3.3)      **having a planar extension and a thickness direction perpendicular to the planar extension, wherein**
- (1.3.4)      **at least one of the top sheet or the transfer sheet includes thermoplastic material, wherein**
- (1.3.5)      **the top sheet and the transfer sheet are joined together through bonding locations on the laminate, wherein**
- (1.3.5.1)     **the thermoplastic material is caused to at least partially soften or melt and thereby join together the top sheet and the transfer sheet, and wherein**
- (1.3.5.1.2)   **the sheet-joining regions of the laminate extend in the thickness direction of the laminate through the top sheet and at least partially through the transfer sheet,**
- (1.4)       **the absorbent body being enclosed between the liquid-impermeable backing sheet and the material laminate.**

The phrase "partially neutralized superabsorbent" in feature (1.1.1) is unclear *per se*. In view of this it is to be interpreted in the light of the patent specification. According to page 2, lines 22 to 24, a conventional superabsorbent material has a degree of neutralisation of about 70%, whereas the partially neutralized superabsorbent material has a degree of neutralisation.

Having regard to this definition, the phrase "partially neutralized superabsorbent" is to be understood as a superabsorbent having a degree of neutralization of less than 70%. In the feature analysis which is enclosed as D0' to facilitate further reading of this opposition brief the above has already been taken into consideration.

## **1.2. Lack of Novelty of Claim 1 in view of D1 (referring to D2)**

### **1.2.1. Preliminary Remarks**

According to the case law developed by the Boards of Appeal, the presence of a specific reference to a second document in a primary document may necessitate part or all of the disclosure of the second document being considered as part of the disclosure of the primary document (see T 153/85; T645/91; T 942/91; T422/92; T 239/94; see also Guidelines for Examination in the European Patent Office, Part C, Chapter IV, Section 7.1).

In the present case, such a reference to D2 is given in D1 regarding the superabsorbent material, i.e., feature (1.1.1) of Claim 1, with the consequence that Claim 1 is lacking novelty in view of D1 referring to D2.

For the case that the opposition division will not follow the above argument, it is submitted, as auxiliary argument, that Claim 1 is lacking an inventive step in view of the combination of D1 and D2. As will be readily available from the discussion below, D1 discloses explicitly all features of Claim 1 except feature (1.1.1) referring to the partially neutralized superabsorbent material, and further, due to the explicit reference to D2 in this document D1, a skilled person would use the partially neutralized superabsorbent disclosed in D2 without performing any inventive activity.

### 1.2.2. Lack of Novelty

D1 discloses on page 9, lines 2 to 6 with reference to Fig. 2 a sanitary napkin 20 comprising a liquid pervious top sheet 28, a liquid impervious back sheet 30 and an absorbent core 32 provided between these two layers. According to page 2, lines 6 to 8, the sanitary napkin further comprises a so-called acquisition sheet 34, which is provided according to the alternative disclosed on page 2, line 10 as being a part of the top sheet. In other words, the top sheet and the acquisition sheet form a laminate.

Thus, D1 discloses features (1.0), (1.1), (1.2), (1.3), and (1.4).

Regarding the absorbent boy, also referred to as absorbent core, reference is made to D1, page 34, section "Absorbent Core". According to page 34, last line to page 35, line 6, the absorbent core comprises particles in any form of a hydrogel-forming polymer material, as disclosed in D2.

D2 discloses an absorbent core provided – amongst others – with a hydrogel-forming polymeric gelling agent (see column 4, lines 51 to 60). Further, using such material leads to an enhanced absorbent capacity, i.e. to improve absorbency (column 4, lines 64 to 69). As a matter of fact, the only superabsorbent disclosed in the contested patent is a cross-linked polyacrylate (see page 5, line 34 of D0). This material is also disclosed in D2 as one alternative. In particular, in column 5, lines 24 and 27, polyacrylate is mentioned as preferred polymeric gelling agents; according to column 5, lines 31 to 35, such polymeric gelling agents will in general be cross-linked to render the agents water-insoluble.

As pointed out in column 5, lines 57 to 65, the hydrogel-forming polymer material is provided in a partially neutralized form which is defined according to column 5, lines 60 to 65 as having a degree of neutralization between 25% and 50%.

In view of this, D2 discloses feature (1.1.1), and since D1 explicitly refers to D2 regarding the superabsorbent materials of the core, this disclosure is to be considered as part of the disclosure of D1. Therefore, D1 shows feature (1.1.1).

Further, as already indicated above, the laminate material of D1 comprises a top sheet layer, the characteristics thereof being disclosed in D1, page 9, section "The Top Sheet". According to page 10, 2<sup>nd</sup> paragraph, the top sheet can be provided in form of a nonwoven containing natural and/or synthetic fibers. As already mentioned the top sheet must be liquid pervious or liquid permeable (see page 9, lines 3 and 4). Therefore, feature (1.3.1) is also disclosed in D1.

Regarding feature (1.3.2), reference is made to page 15, section "The Acquisition Layer". The function of the acquisition layer of D1 is described in detail on page 17, 3<sup>rd</sup> full to page 18; 2<sup>nd</sup> full paragraph. Accordingly, the layer must be able to provide temporarily holding capacity during the time interval between the time exudates are deposited onto the top sheet and the time they are absorbed by the absorbent core (see page 18, 1<sup>st</sup> full paragraph), and to provide a more even distribution of the exudates throughout the absorbent core (see page 17, 3<sup>rd</sup> full paragraph), and also to acquire and temporarily hold gushes of liquid. According to the contested patent (see page 4, lines 2 to 6), the second material sheet, i.e., the transfer sheet, must fulfill the same function. Therefore, the acquisition sheet of D1 is also a transfer sheet in the sense of the contested patent.

As indicated on page 19, 3<sup>rd</sup> full paragraph, 2<sup>nd</sup> sentence the acquisition layer must be liquid permeable. Of course, due to the fact that the top sheet of D1 must be liquid pervious (see page 9, lines 3 and 4), also the acquisition layer being an integral part thereof must be liquid pervious or permeable.

According to page 18, 1<sup>st</sup> full paragraph, the acquisition layer has sufficient open spaces between its fibers. As a consequence, and as every skilled person knows, the layer must be porous. Further, due to the fact that this layer provides open spaces and due to the materials used, this layer must also be resilient.

As can be readily seen in Fig. 3 of D1, the acquisition layer is provided proximal to the absorbent body. As a matter of fact, this feature also follows from one of the functions of the acquisition layer, namely from the function of distributing the liquid for a better intake by the absorbent core.

Summarized, D1 also discloses feature (1.3.1).

The laminate according to D1 has a planar extension and a thickness direction perpendicular thereto. This feature is already implied by the fact that the laminate is used for a sanitary napkin. Therefore, D1 shows feature (1.3.3).

The remaining features of Claim 1 refer to the fact that the laminate is obtained by a thermo-bonding process. With respect to that point, reference is made to D1, page 23, section "Fusion of the Top sheet to the Acquisition Layer". Already the title of this section implies that both layers are thermo-bonded. Further, on page 24, 1<sup>st</sup> full paragraph, it is disclosed that the fusion can be accomplished by heat and/or pressure bonds, ultrasonic bonds, and the like. Therefore, the laminate must contain bonding locations such that D1 also shows bonding locations in the sense of the contested patent.

The paragraph bridging pages 23 and 24 discloses the two alternatives of Claim 1, i.e., the materials of both layers are melted together, and the material of one layer is melted and the melting causes the molten material to become attached to the non-molten material. Thus, features (1.3.4), (1.3.5.1) and (1.3.5.1.1) is fulfilled in D1.

Furthermore, according to page 28, 1<sup>st</sup> full paragraph, the bonds described in D1 may be formed deep enough to go into part or all of any layers. This clearly indicates that the sheet joining regions of the laminate extend in the thickness direction of the laminate through the top sheet and the at least partially through the transfer sheet. Thus, also feature (1.3.5.1.2) is known from D1.

Summarized, D1 discloses an absorbent article comprising all features of granted Claim 1; therefore, Claim 1 is anticipated by D1.

### **1.3. Lack of Inventiveness of Claim 1 in view of a combination of D1 and D3**

As already discussed above, D1 explicitly mentions all features of Claim 1 except feature (1.1.1). Regarding the absorbent core, D1 explicitly mentions in one embodiment that it can contain superabsorbent material (page 34, 3<sup>rd</sup> full paragraph).

In view of this, a skilled person, when implementing this one embodiment of D1, would certainly consider employing superabsorbent material disclosed in the art for this specific purpose.

D3 discloses a polymeric composition which contains superabsorbent material for an absorbent core of a feminine hygienic product (see page 2, lines 5 and 6). The polymeric composition has a degree of neutralization within the range of 10% – 45% (see page 5, lines 40 to 43).

Therefore, when implementing this one embodiment of D1 by using a well known material for the absorbent core, a skilled person automatically reaches at Claim 1 without performing any inventive step. Thus, Claim 1 is lacking an inventive step in view of a combination of D1 and D3.

## 2. Claim 2 of the Granted Patent

### 2.1. Feature Analysis of Claim 2

Claim 2 refers to an absorbent article according to Claim 1, comprising

- (2.1) bonding regions being disposed in two or more groups
  - (2.1.1) wherein each group includes at least two bonding locations,
  - (2.1.2) wherein the largest relative distance between two mutually adjacent bonding locations in a given group is smaller than the smallest distance between a group and its nearest neighboring group,
- (2.2) wherein the laminate includes between the bonding locations in each bonding group first non-bonded laminate regions which have a greater density than second non-bonded laminate regions located between respective bonding groups.

## 2.2. Lack of Inventiveness of Claim 2 in View of a combination of D1 and D4

An absorbent article containing all features of Claim 1 is known from D1. In view of this, Claim 2 differs from this absorbent article only in that a different bonding pattern for the top sheet and the transfer layer is used. However, in the field of sanitary napkins, a variety of different bonding patterns are known, in particular, also a bonding pattern comprising all features of Claim 2.

D4; a registered German design model, discloses a bonding pattern for a sanitary napkin. Unlike in drawings in patent applications, the drawings for registered design model must be interpreted such that they have actual relative distances.

This bonding pattern of D4 has bonding locations disposed in a variety of groups. Each group contains at least two bonding locations. Thus features (2.1) and (2.1.1) are shown in D4. In the attached copy, two such neighboring groups are designated with A and A'. Further, the largest relative distance between two bonding locations in group A, designated as y is smaller than the smallest distance between the neighboring groups A and A', designated as x. Therefore, also feature (2.1.2) is disclosed in D4.

Due to non-uniform distribution of the bonding points, there is also a different density of the regions between the bonding location within the group A and the region between the group A'. In view of this, also feature (2.2) must be realized when using the bonding pattern on D4.

Since a skilled person has to form a laminate between the sheet and the transfer sheet by a bonding process according to D1, he/she has to use a specific bonding pattern. Of course, there is no inventive action by merely using a bonding pattern already known in the art for exactly the same purpose. Therefore, by combining the teaching of D1 with the bonding pattern disclosed in D4 leads to all features of Claim 2 in an obvious manner. In other word, Claim 2 is lacking an inventive step.

### **3. Claim 3 of the Granted Patent**

Claim 3 of the granted patent refers to the absorbent article of Claim 1 in which the superabsorbent has a degree of neutralization such that the pH of the absorbent body of the article when wetted will lie in the range of 3.5 – 4.9, preferably 4.1 – 4.7.

Claim 3 is directed to a parameter invention. According to the case law of the Boards of Appeal regarding parameter inventions, a claim containing a parameter (or parameter range) fulfills the requirement of Article 83, if and only if all details of the measuring method for the parameter are given in the specification such that the parameter can be unambiguously determined (see for example T123/85; T124/85; T 172/87; T 358/88; T 449/90; T 148/91; T267/91; T697/91).

In the contested patent, this is, however, not the case. The pH of the absorbent article is determined with "Method 3", disclosed on page 7, lines 11 to 16. Accordingly, a certain amount of a Test Liquid 1, 2, or alternatively 3 has been used. Further, Example 8 (page 10, lines 29 to 31; Table 6) shows that the pH value depends on whether test Liquid 1, 2, or 3 has been used, since the pH values obtained for the different test liquids vary considerably.

Since Claim 3 is absolutely silent about which test liquid has been used, the pH value cannot be unambiguously determined, such that the requirement underlying the above referenced decisions is not fulfilled. As a matter of fact, if the pH value of an absorbent body is measured by using Test Liquid 1 and a result of 4.89 is obtained, this absorbent body would fall within the scope of Claim 3. However, if the pH value of same absorbent body is measured by using Test Liquid 3 (which apparently gives higher values), the absorbent body would not fall within the scope of Claim 3.

Therefore, the subject matter of Claim 3 does not fulfill the requirement of Article 83.

### **4. Claim 4 of the Granted Patent**

According to Claim 4, the bonding locations include punctiform bond, linear bonds, rectangular bonds or circular bonds.

As it is readily available from Fig. 1 in D1, this document discloses circular bonds 44a and punctiform bonds 44b. Therefore, also Claim 4 is anticipated by D1. Furthermore, also linear and rectangular bonds are well known for a skilled person.

Furthermore, since the feature of Claim 4 is also shown in D1, the arguments presented above regarding lack of inventiveness of Claim 1 in view of a combination of a further embodiment of D1 and D3 apply *vis-à-vis* with the result that also this claim is lacking inventiveness in view of D1 and D3.

#### **5. Claim 5 of the Granted Patent**

Claim 5 requires that the top sheet has through-penetrating holes within the bonding locations. Also this feature is disclosed in D1. In particular, on page 29, 1<sup>st</sup> paragraph, it is emphasized that holes 72 can be intentionally formed in the fused areas 50, i.e., in the bonding locations. Thus, Claim 5 is anticipated by D1.

Furthermore, since the feature of Claim 5 is also shown in D1, the arguments presented above regarding lack of inventiveness of Claim 1 in view of a combination of a further embodiment of D1 and D3 apply *vis-à-vis* with the result that also this claim is lacking inventiveness in view of D1 and D3.

#### **6. Claim 6 of the Granted Patent**

Claim 6 is directed to an absorbent article comprising a top sheet in the form of a nonwoven material. Already in the context of lack of novelty of Claim 1 it has been shown that D1 discloses a top sheet in form of a nonwoven (page 10, 2<sup>nd</sup> paragraph, first sentence). Thus, also Claim 6 is lacking novelty in view of D1.

Furthermore, since the feature of Claim 6 is also shown in D1, the arguments presented above regarding lack of inventiveness of Claim 1 in view of a combination of a further embodiment of D1 and D3 apply *vis-à-vis* with the result that also this claim is lacking inventiveness in view of D1 and D3.

**7. Claim 7 of the Granted Patent**

According to Claim 7 the top sheet shall be a carded, thermo-bonded nonwoven material. Page 10, 2<sup>nd</sup> paragraph, 2<sup>nd</sup> sentence of D1 discloses that a nonwoven can contain a mixture of natural and synthetic fibers. As every skilled person knows, when forming a material using such a mixture a dry-laying process can be used. In the art, there are two different dry-laying processes known, i.e., air-laying and carding. Further, when using a dry-laying process, the fibers have to be bonded by a thermo-bonding process to form a layer.

Thus, Claim 7 is merely directed to one of the few well known alternatives for forming a nonwoven layer out of a mixture of natural and synthetic fibers, i.e., a carded, thermo-bonded nonwoven material is implicitly disclosed in D1. Therefore, also Claim 7 is anticipated by D1.

Additionally, the feature of Claim 4 being known from D1, the arguments presented above regarding lack of inventiveness of Claim 1 in view of a combination of a further embodiment of D1 and D3 apply *vis-à-vis* with the result that also this claim is lacking inventiveness in view of D1 and D3.

**8. Claim 8 of the Granted Patent**

Claim 8 is directed to a transfer layer comprising a fiber wadding sheet with a thickness of 0.5 – 4 mm. D1 discloses as a typical thickness of the acquisition sheet exactly the same range (see page 16, lines 3 to 4). According to page 20, 2<sup>nd</sup> paragraph, the acquisition sheet of D1 can be formed of natural fibers, such as cotton fibers. Thus, also D1 discloses a fiber wadding sheet with the result that also Claim 8 is anticipated by D1.

In addition, since the above features are known from D1, the arguments presented above regarding lack of inventiveness of Claim 1 in view of a combination of a further embodiment of D1 and D3 apply *vis-à-vis* with the result that also this claim is lacking inventiveness in view of D1 and D3.

**9. Claim 9 of the Granted Patent**

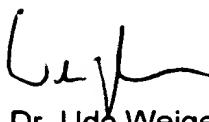
Claim 9 requires that the smallest distance between two mutually adjacent groups of bonding locations  $x$  is at least twice the size of the greatest distance between two mutually adjacent bonding locations in respective groups. Also this feature can be readily obtained from D4. In view of this the same argument as with respect to Claim 2 applies, with the consequence that Claim 9 is lacking an inventive step with respect to a combination of D1 and D4.

**10. Claim 10 of the Granted Patent**

Claim 10 refers to Claim 9; further the ratio  $x/y$  shall lie in the range of 2 to 12. The ratio in D4 for the designated groups A and A' can be determined directly from the drawing. It is 3.5, i.e., well within the claimed range. Therefore, the arguments provided with respect to Claims 2 and 9 apply *vis-à-vis*. Claim 10 is lacking an inventive step in view of D1 and D4.

**11. Claim 11 of the Granted Patent**

In Claim 11, specific values for  $x$  and  $y$  are required. However, a skilled person implementing the bonding pattern of D4 will definitely try different values for  $x$  and  $y$ , and therefore, reach at Claim 11 in an obvious manner. Thus, also Claim 11 is lacking an inventive step.



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